SUBJECT INDEX

Africa
Law and Natural-Resource Development: Case of Water in Lesotho, Fred O. Boadu, WR Nov./Dec. 91, p698-710.

Agricultural wastes
Sociotechnical Analysis of Irrigation Drainage in Central California, Janne I. Hukkinen, WR Mar./Apr. 91, p217-234.

Alfalfa
CO_2-Induced Climatic Changes and Irrigation-Water Requirements, Richard G. Allen, Francis N. Gichuki and Cynthia Rosenzweig, WR Mar./Apr. 91, p157-178.

Approximation methods
Reservoir Operations by Successive Linear Programming, Tao Tao and William C. Lennox, WR Mar./Apr. 91, p274-280.

Aqueducts
Aqueduct and Reservoir Capacities for Distribution Systems, Lawrence E. Flynn and Miguel A. Mariño, WR Sept./Oct. 89, p547-565.

Aquifers
Identification of Aquifer's Well-Pumpage Histories, John C. Tracy and Miguel A. Mariño, WR July/Aug. 91, p432-447.

Mass Transport Modeling in Contaminated Buried-Valley Aquifer, Paul F. Hudak and Hugo A. Loaiciga, WR Mar./Apr. 91, p260-272.

On Management of Ground Water in Ross Creek Basin, Alberta, Canada, Duke U. Ophori, WR Mar./Apr. 91, p195-216.

Optimal Configuration and Scheduling of Ground-Water Tracer Test, Theodore G. Cleveland and William W. -G. Yeh, WR Jan./Feb. 91, p37-51.

Optimal Planning and Operation of Multiaquifer System, Hasan Yazicigil, WR July/Aug. 90, p435-454.

Using Regional Ground-Water Model in Water Resource Planning, Mark Maimone, WR July/Aug. 91, p448-459.

Automation
Prototype Decision Support System for Analyzing Impact of Catchment Policies, J. Richard Davis, Paul M. Nanninga, John Biggins and Peter Laut, WR July/Aug. 91, p399-414.

Role for Decision-Support Systems in Water-Delivery Design, David E. Pingry, Timothy L. Shaftel and Keith E. Boles, WR Nov./Dec. 91, p629-644.

Basins
On Management of Ground Water in Ross Creek Basin, Alberta, Canada, Duke U. Ophori, WR Mar./Apr. 91, p195-216.

Benefit cost analysis
Method for Locally Adapted Water-Pollution Abatement in Lake Mjøsa, Norway, Hans Olav Ibrekk, Erik Børset and Erik Hauan, WR July/Aug. 91, p415-431.

Calibration
Knowledge-Based System for SWMM Runoff Component Calibration, S. Y. Liong, W. T. Chan and L. H. Lum, WR Sept./Oct. 91, p507-524.

Parameter Estimation for Water Distribution Networks, Kevin E. Lansey and Chuda Basnet, WR Jan./Feb. 91, p126-144.

California
Climatic Sensitivity of California Water Resources, Dennis P. Lettenmaier and Daniel P. Sheer, WR Jan./Feb. 91, p108-125.

Equitable Apportionment Between Nevada and California, John W. Bird, WR Mar./Apr. 91, p253-259.

Model Aggregation for California State Water Project, Hossein Sabet and Curtis L. Creel, WR Sept./Oct. 91, p549-565.

Sociotechnical Analysis of Irrigation Drainage in Central California, Janne I. Hukkinen, WR Mar./Apr. 91, p217-234.

Canada
On Management of Ground Water in Ross Creek Basin, Alberta, Canada, Duke U. Ophori, WR Mar./Apr. 91, p195-216.

Carbon dioxide
CO_2-Induced Climatic Changes and Irrigation-Water Requirements, Richard G. Allen, Francis N. Gichuki and Cynthia Rosenzweig, WR Mar./Apr. 91, p157-178.

Catchments
Annual Runoff Estimation for Catchments in India, U. C. Kothyari and R. J. Garde, WR Jan./Feb. 91, p1-10.

Prototype Decision Support System for Analyzing Impact of Catchment Policies, J. Richard Davis, Paul M. Nanninga, John Biggins and Peter Laut, WR July/Aug. 91, p399-414.

Chlorides
Mass Transport Modeling in Contaminated Buried-Valley Aquifer, Paul F. Hudak and Hugo A. Loaiciga, WR Mar./Apr. 91, p260-272.

Climatic changes
Climatic Sensitivity of California Water Resources, Dennis P. Lettenmaier and Daniel P. Sheer, WR Jan./Feb. 91, p108-125.

CO_2-Induced Climatic Changes and Irrigation-Water Requirements, Richard G. Allen, Francis N. Gichuki and Cynthia Rosenzweig, WR Mar./Apr. 91, p157-178.

Community goals
Method for Locally Adapted Water-Pollution Abatement in Lake Mjøsa, Norway, Hans Olav Ibrekk, Erik Børset and Erik Hauan, WR July/Aug. 91, p415-431.

Computer applications
Role for Decision-Support Systems in Water-Delivery Design, David E. Pingry, Timothy L. Shaftel and Keith E. Boles, WR Nov./Dec. 91, p629-644.

Computer models
Using Regional Ground-Water Model in Water Resource Planning, Mark Maimone, WR July/Aug. 91, p448-459.

Computer programs
Network Flow Modeling of Oroville Complex, Hossein Sabet and Curtis L. Creel, WR May/June 91, p301-320.

Conservation
Water Supplies and Nationwide Drought of 1988, David H. Moreau, WR July/Aug. 91, p460-470.

Contamination
Mass Transport Modeling in Contaminated Buried-Valley Aquifer, Paul F. Hudak and Hugo A. Loaiciga, WR Mar./Apr. 91, p260-272.

Continuity equation
Reservoir Operations by Successive Linear Programming, Tao Tao and William C. Lennox, WR Mar./Apr. 91, p274-280.

Cost minimization
Optimal Design for Storm Sewer System with Pumping Stations, Jan-Tai Kuo, Ben Chie Yen and Gie-Ping Hwang, WR Jan./Feb. 91, p11-27.

Court decisions
Equitable Apportionment Between Nevada and California, John W. Bird, WR Mar./Apr. 91, p253-259.

Crop yield
Conjunctive Water Use to Control Waterlogging and Salinization, Muhammad Latif and L. Douglas James, WR Nov./Dec. 91, p611-628.

Crops
CO_2-Induced Climatic Changes and Irrigation-Water Requirements, Richard G. Allen, Francis N. Gichuki and Cynthia Rosenzweig, WR Mar./Apr. 91, p157-178.

Decision making
Output Reliability as Guide for Selection of Rainfall-Runoff Models, Charles S. Melching, Ben C. Yen and Harry G. Wenzel, Jr., WR May/June 91, p383-398.

Prototype Decision Support System for Analyzing Impact of Catchment Policies, J. Richard Davis, Paul M. Nanninga, John Biggins and Peter Laut, WR July/Aug. 91, p399-414.

Role for Decision-Support Systems in Water-Delivery Design, David E. Pingry, Timothy L. Shaftel and Keith E. Boles, WR Nov./Dec. 91, p629-644.

Decision theory
Random Variables Versus Uncertain Values: Stochastic Modeling and Design, Jay R. Lund, WR Mar./Apr. 91, p179-194.

Design
Optimum Diversion Plan for Hydropower Scheme, Tawatchai Tingsanchali and Carlos C. Carriaga, WR Mar./Apr. 89, p195-211.

Random Variables Versus Uncertain Values: Stochastic Modeling and Design, Jay R. Lund, WR Mar./Apr. 91, p179-194.

System Analysis of Water Treatment Plant in Taiwan, Ming-Yang Wu and Wen-Sen Chu, WR Sept./Oct. 91, p536-548.

Developing countries
Law and Natural-Resource Development: Case of Water in Lesotho, Fred O. Boadu, WR Nov./Dec. 91, p698-710.

Development
Optimal Sequencing of Development for Hydropower Stations in Cascade, Yonghua Wan, Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395.

Diffusers
Expert Systems for Mixing-Zone Analysis of Pollutant Discharges, Robert L. Doneker and Gerhard H. Jirka, WR Nov./Dec. 91, p679-697.

Discharge
Expert Systems for Mixing-Zone Analysis of Pollutant Discharges, Robert L. Doneker and Gerhard H. Jirka, WR Nov./Dec. 91, p679-697.

Distribution patterns
Recurrence Interval of Geophysical Events, Hugo A. Loaiciga and Miguel A. Mariño, WR May/June 91, p367-382.

Diversion
Optimum Diversion Plan for Hydropower Scheme, Tawatchai Tingsanchali and Carlos C. Carriaga, WR Mar./Apr. 89, p195-211.

Drainage
Sociotechnical Analysis of Irrigation Drainage in Central California, Janne I. Hukkinen, WR Mar./Apr. 91, p217-234.

Droughts
Drought Management Plan for Lower Colorado River in Texas, Quentin W. Martin, WR Nov./Dec. 91, p645-661.

Water Supplies and Nationwide Drought of 1988, David H. Moreau, WR July/Aug. 91, p460-470.

Dynamic programming
Aqueduct and Reservoir Capacities for Distribution Systems, Lawrence E. Flynn and Miguel A. Mariño, WR Sept./Oct. 89, p547-565.

Multistep Planning Model for Conjunctive Use of Surface- and Ground-Water Resources, Pushpa Raj Onta, Ashim Das Gupta and Ricardo Harboe, WR Nov./Dec. 91, p662-678.

Optimal Configuration and Scheduling of Ground-Water Tracer Test, Theodore G. Cleveland and William W. -G. Yeh, WR Jan./Feb. 91, p37-51.

Optimal Design for Storm Sewer System with Pumping Stations, Jan-Tai Kuo, Ben Chie Yen and Gie-Ping Hwang, WR Jan./Feb. 91, p11-27.

Optimal Sequencing of Development for Hydropower Stations in Cascade, Yonghua Wan, Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395.

Stochastic Optimization of Multiple-Reservoir-System Operation, Benedito P. F. Braga, Jr., William W-G. Yeh, Leonard Becker and Mario T. L. Barros, WR July/Aug. 91, p471-481.

Testing Stochastic Dynamic Programming Models Conditioned on Observed or Forecasted Inflows, Wen-Cheng Huang, Ricardo Harboe and Janos J. Bogardi, WR Jan./Feb. 91, p28-36.

Economic analysis

Alternative Water-District Organization: Screening-Level Analysis, Christopher Enright and Jay R. Lund, WR Jan./Feb. 91, p86-107.

Aqueduct and Reservoir Capacities for Distribution Systems, Lawrence E. Flynn and Miguel A. Mariño, WR Sept./Oct. 89, p547-565.

Education

Education—Key to Dealing with Social and Environmental Objectives, Ernest T. Smerdon, WR Jan./Feb. 89, p43-17.

Environmental issues

Education—Key to Dealing with Social and Environmental Objectives, Ernest T. Smerdon, WR Jan./Feb. 89, p43-17.

Erosion control

Levels of Service Applied to Urban Streams, H. Rooney Malcom and Cynthia C. Lancaster, WR July/Aug. 91, p482-497.

Error analysis

Pollutant Washoff Under Noise-Corrupted Runoff Conditions, G. G. Patry and A. Kennedy, WR Sept./Oct. 89, p646-657.

Estimation

Identification of Aquifer's Well-Pumpage Histories, John C. Tracy and Miguel A. Mariño, WR July/Aug. 91, p432-447.

Optimal Configuration and Scheduling of Ground-Water Tracer Test, Theodore G. Cleveland and William W. -G. Yeh, WR Jan./Feb. 91, p37-51.

Evapotranspiration

CO_2-Induced Climatic Changes and Irrigation-Water Requirements, Richard G. Allen, Francis N. Gichuki and Cynthia Rosenzweig, WR Mar./Apr. 91, p157-178.

Expert systems

Expert Systems for Mixing-Zone Analysis of Pollutant Discharges, Robert L. Doneker and Gerhard H. Jirka, WR Nov./Dec. 91, p679-697.

Knowledge-Based System for SWMM Runoff Component Calibration, S. Y. Liong, W. T. Chan and L. H. Lum, WR Sept./Oct. 91, p507-524.

Prototype Decision Support System for Analyzing Impact of Catchment Policies, J. Richard Davis, Paul M. Nanninga, John Biggins and Peter Laut, WR July/Aug. 91, p399-414.

Failures

Estimation of Maximum Cut-set Size for Water Network Failure, P. Jacobs and I. Goulter, WR Sept./Oct. 91, p588-605.

Farms

Aqueduct and Reservoir Capacities for Distribution Systems, Lawrence E. Flynn and Miguel A. Mariño, WR Sept./Oct. 89, p547-565.

Finance

Regionalization in Water Supply Industry: Status and Needs, Neil S. Grigg, WR May/June 89, p367-378.

Fiscal policies

Law and Natural-Resource Development: Case of Water in Lesotho, Fred O. Boadu, WR Nov./Dec. 91, p698-710.

Flood control

Levels of Service Applied to Urban Streams, H. Rooney Malcom and Cynthia C. Lancaster, WR July/Aug. 91, p482-497.

Forecasting

Forecasting in Optimizing Dual System for Energy Generation and Irrigation, Gideon Oron, Abraham Mehrez and Gad Rabinowitz, WR May/June 91, p287-300.

Role of Sociodemographic Characteristics in Projections of Water Use, Steve H. Murdock, Don E. Albrecht, Rita R. Hamm and Kenneth Backman, WR Mar./Apr. 91, p235-251.

Testing Stochastic Dynamic Programming Models Conditioned on Observed or Forecasted Inflows, Wen-Cheng Huang, Ricardo Harboe and Janos J. Bogardi, WR Jan./Feb. 91, p28-36.

Gaussian process

Optimal Stochastic Operation of Salt River Project, Arizona, Eric R. Hooper, Aris P. Georgakakos and Dennis P. Lettenmaier, WR Sept./Oct. 91, p566-587.

Ground water

Multistep Planning Model for Conjunctive Use of Surface- and Ground-Water Resources, Pushpa Raj Onta, Ashim Das Gupta and Ricardo Harboe, WR Nov./Dec. 91, p662-678.

Optimal Configuration and Scheduling of Ground-Water Tracer Test, Theodore G. Cleveland and William W. -G. Yeh, WR Jan./Feb. 91, p37-51.

Ground-water flow

Identification of Aquifer's Well-Pumpage Histories, John C. Tracy and Miguel A. Mariño, WR July/Aug. 91, p432-447.

Ground-water management

Conjunctive Water Use to Control Waterlogging and Salinization, Muhammad Latif and L. Douglas James, WR Nov./Dec. 91, p611-628.

On Management of Ground Water in Ross Creek Basin, Alberta, Canada, Duke U. Ophori, WR Mar./Apr. 91, p195-216.

Optimal Planning and Operation of Multiaquifer System, Hasan Yazicigil, WR July/Aug. 90, p435-454.

Using Regional Ground-Water Model in Water Resource Planning, Mark Maimone, WR July/Aug. 91, p448-459.

Ground-water supply

Using Regional Ground-Water Model in Water Resource Planning, Mark Maimone, WR July/Aug. 91, p448-459.

Hydrodynamics

Expert Systems for Mixing-Zone Analysis of Pollutant Discharges, Robert L. Doneker and Gerhard H. Jirka, WR Nov./Dec. 91, p679-697.

Hydroelectric power

Optimal Stochastic Operation of Salt River Project, Arizona, Eric R. Hooper, Aris P. Georgakakos and Dennis P. Lettenmaier, WR Sept./Oct. 91, p566-587.

Hydroelectric power generation

Forecasting in Optimizing Dual System for Energy Generation and Irrigation, Gideon Oron, Abraham Mehrez and Gad Rabinowitz, WR May/June 91, p287-300.

Integer Programming Application for Planning of Hydropower Production, Thanos Trezos, WR May/June 91, p340-351.

Network Flow Modeling of Oroville Complex, Hossein Sabet and Curtis L. Creel, WR May/June 91, p301-320.

Optimum Diversion Plan for Hydropower Scheme, Tawatchai Tingsanchali and Carlos C. Carriaga, WR Mar./Apr. 89, p195-211.

Stochastic Optimization of Multiple-Reservoir-System Operation, Beneditc P. F. Braga, Jr., William W-G. Yeh, Leonard Becker and Mario T. L. Barros, WR July/Aug. 91, p471-481.

Testing Stochastic Dynamic Programming Models Conditioned on Observed or Forecasted Inflows, Wen-Cheng Huang, Ricardo Harboe and Janos J. Bogardi, WR Jan./Feb. 91, p28-36.

Hydroelectric powerplants

Optimal Sequencing of Development for Hydropower Stations in Cascade, Yonghua Wan, Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395.

Hydrogeology

Estimation of Inundation in Open-Cast Limestone Mine in Kerala, India, S. P. Rajagopalan and P. M. Raghavendra Prasad, WR Sept./Oct. 91, p525-535.

Hydrographs

Using Regional Ground-Water Model in Water Resource Planning, Mark Maimone, WR July/Aug. 91, p448-459.

Hydrologic models

On Management of Ground Water in Ross Creek Basin, Alberta, Canada, Duke U. Ophori, WR Mar./Apr. 91, p195-216.

Hydrology

Estimation of Inundation in Open-Cast Limestone Mine in Kerala, India, S. P. Rajagopalan and P. M. Raghavendra Prasad, WR Sept./Oct. 91, p525-535.

India

Annual Runoff Estimation for Catchments in India, U. C. Kothyari and R. J. Garde, WR Jan./Feb. 91, p1-10.

Inflow

Testing Stochastic Dynamic Programming Models Conditioned on Observed or Forecasted Inflows, Wen-Cheng Huang, Ricardo Harboe and Janos J. Bogardi, WR Jan./Feb. 91, p28-36.

Information systems

Forecasting in Optimizing Dual System for Energy Generation and Irrigation, Gideon Oron, Abraham Mehrez and Gad Rabinowitz, WR May/June 91, p287-300.

Infrastructure

Reliability-Based Distribution System Maintenance, Rafael G. Quimpo and Uzair M. Shamsi, WR May/June 91, p321-339.

Interaction models

Reservoir Planning for Irrigation District, Abbas Afshar, Miguel A. Mariño and Ahmad Abrishamchi, WR Jan./Feb. 91, p74-85.

Irrigation

Drought Management Plan for Lower Colorado River in Texas, Quentin W. Martin, WR Nov./Dec. 91, p645-661.

Forecasting in Optimizing Dual System for Energy Generation and Irrigation, Gideon Oron, Abraham Mehrez and Gad Rabinowitz, WR May/June 91, p287-300.

Multistep Planning Model for Conjunctive Use of Surface- and Ground-Water Resources, Pushpa Raj Onta, Ashim Das Gupta and Ricardo Harboe, WR Nov./Dec. 91, p662-678.

Reservoir Planning for Irrigation District, Abbas Afshar, Miguel A. Mariño and Ahmad Abrishamchi, WR Jan./Feb. 91, p74-85.

Sociotechnical Analysis of Irrigation Drainage in Central California, Janne I. Hukkinen, WR Mar./Apr. 91, p217-234.

Irrigation efficiency

Multistep Planning Model for Conjunctive Use of Surface- and Ground-Water Resources, Pushpa Raj Onta, Ashim Das Gupta and Ricardo Harboe, WR Nov./Dec. 91, p662-678.

Irrigation engineering

Sociotechnical Analysis of Irrigation Drainage in Central California, Janne I. Hukkinen, WR Mar./Apr. 91, p217-234.

Irrigation water

CO_2-Induced Climatic Changes and Irrigation-Water Requirements, Richard G. Allen, Francis N. Gichuki and Cynthia Rosenzweig, WR Mar./Apr. 91, p157-178.

Iteration

Reservoir Operations by Successive Linear Programming, Tao Tao and William C. Lennox, WR Mar./Apr. 91, p274-280.

Knowledge-based systems

Knowledge-Based System for SWMM Runoff Component Calibration, S. Y. Liong, W. T. Chan and L. H. Lum, WR Sept./Oct. 91, p507-524.

Land management

Prototype Decision Support System for Analyzing Impact of Catchment Policies, J. Richard Davis, Paul M. Nanninga, John Biggins and Peter Laut, WR July/Aug. 91, p399-414.

Landfills

Mass Transport Modeling in Contaminated Buried-Valley Aquifer, Paul F. Hudak and Hugo A. Loaiciga, WR Mar./Apr. 91, p260-272.

Legislation

Law and Natural-Resource Development: Case of Water in Lesotho, Fred O. Boadu, WR Nov./Dec. 91, p698-710.

Linear programming

Drought Management Plan for Lower Colorado River in Texas, Quentin W. Martin, WR Nov./Dec. 91, p645-661.

Optimal Planning and Operation of Multiaquifer System, Hasan Yazicigil, WR July/Aug. 90, p435-454.

Reservoir Operations by Successive Linear Programming, Tao Tao and William C. Lennox, WR Mar./Apr. 91, p274-280.

Maintenance

Reliability-Based Distribution System Maintenance, Rafael G. Quimpo and Uzair M. Shamsi, WR May/June 91, p321-339.

Mass transport

Mass Transport Modeling in Contaminated Buried-Valley Aquifer, Paul F. Hudak and Hugo A. Loaiciga, WR Mar./Apr. 91, p260-272.

Mathematical models

Optimal Sequencing of Development for Hydropower Stations in Cascade, Yonghua Wan, Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395.

Mixing

Expert Systems for Mixing-Zone Analysis of Pollutant Discharges, Robert L. Doneker and Gerhard H. Jirka, WR Nov./Dec. 91, p679-697.

Modeling

Conjunctive Water Use to Control Waterlogging and Salinization, Muhammad Latif and L. Douglas James, WR Nov./Dec. 91, p611-628.

Model Aggregation for California State Water Project, Hossein Sabet and Curtis L. Creel, WR Sept./Oct. 91, p549-565.

Models

Efficacy of SWMM Application, J. J. Warwick and P. Tadepalli, WR May/June 91, p352-366.

Integer Programming Application for Planning of Hydropower Production, Thanos Trezos, WR May/June 91, p340-351.

Knowledge-Based System for SWMM Runoff Component Calibration, S. Y. Liong, W. T. Chan and L. H. Lum, WR Sept./Oct. 91, p507-524.

Multistep Planning Model for Conjunctive Use of Surface- and Ground-Water Resources, Pushpa Raj Onta, Ashim Das Gupta and Ricardo Harboe, WR Nov./Dec. 91, p662-678.

Output Reliability as Guide for Selection of Rainfall-Runoff Models, Charles S. Melching, Ben C. Yen and Harry G. Wenzel, Jr., WR May/June 91, p383-398.

Testing Stochastic Dynamic Programming Models Conditioned on Observed or Forecasted Inflows, Wen-Cheng Huang, Ricardo Harboe and Janos J. Bogardi, WR Jan./Feb. 91, p28-36.

Monitoring

Optimal Configuration and Scheduling of Ground-Water Tracer Test, Theodore G. Cleveland and William W. -G. Yeh, WR Jan./Feb. 91, p37-51.

Monte Carlo method

Pollutant Washoff Under Noise-Corrupted Runoff Conditions, G. G. Patry and A. Kennedy, WR Sept./Oct. 89, p646-657.

Network analysis

Model Aggregation for California State Water Project, Hossein Sabet and Curtis L. Creel, WR Sept./Oct. 91, p549-565.

Network Flow Modeling of Oroville Complex, Hossein Sabet and Curtis L. Creel, WR May/June 91, p301-320.

Reliability-Based Distribution System Maintenance, Rafael G. Quimpo and Uzair M. Shamsi, WR May/June 91, p321-339.

Networks

Model Aggregation for California State Water Project, Hossein Sabet and Curtis L. Creel, WR Sept./Oct. 91, p549-565.

Nevada

Equitable Apportionment Between Nevada and California, John W. Bird, WR Mar./Apr. 91, p253-259.

Nonlinear programming

Optimum Diversion Plan for Hydropower Scheme, Tawatchai Tingsanchali and Carlos C. Carriaga, WR Mar./Apr. 89, p195-211.

Parameter Estimation for Water Distribution Networks, Kevin E. Lansey and Chuda Basnet, WR Jan./Feb. 91, p126-144.

Norway

Method for Locally Adapted Water-Pollution Abatement in Lake Mjøsa, Norway, Hans Olav Ibrekk, Erik Børset and Erik Hauan, WR July/Aug. 91, p415-431.

Numerical models

Integer Programming Application for Planning of Hydropower Production, Thanos Trezos, WR May/June 91, p340-351.

Mass Transport Modeling in Contaminated Buried-Valley Aquifer, Paul F. Hudak and Hugo A. Loaiciga, WR Mar./Apr. 91, p260-272.

Occurrence

Recurrence Interval of Geophysical Events, Hugo A. Loaiciga and Miguel A. Mariño, WR May/June 91, p367-382.

Open pit mining

Estimation of Inundation in Open-Cast Limestone Mine in Kerala, India, S. P. Rajagopalan and P. M. Raghavendra Prasad, WR Sept./Oct. 91, p525-535.

Operation

System Analysis of Water Treatment Plant in Taiwan, Ming-Yang Wu and Wen-Sen Chu, WR Sept./Oct. 91, p536-548.

Optimal control methods

Optimal Stochastic Operation of Salt River Project, Arizona, Eric R. Hooper, Aris P. Georgakakos and Dennis P. Lettenmaier, WR Sept./Oct. 91, p566-587.

Optimal design

Optimal Configuration and Scheduling of Ground-Water Tracer Test, Theodore G. Cleveland and William W. -G. Yeh, WR Jan./Feb. 91, p37-51.

Optimal Design for Storm Sewer System with Pumping Stations, Jan-Tai Kuo, Ben Chie Yen and Gie-Ping Hwang, WR Jan./Feb. 91, p11-27.

Optimization

Drought Management Plan for Lower Colorado River in Texas, Quentin W. Martin, WR Nov./Dec. 91, p645-661.

Forecasting in Optimizing Dual System for Energy Generation and Irrigation, Gideon Oron, Abraham Mehrez and Gad Rabinowitz, WR May/June 91, p287-300.

Optimal Planning and Operation of Multiaquifer System, Hasan Yazicigil, WR July/Aug. 90, p435-454.

Optimal Sequencing of Development for Hydropower Stations in Cascade, Yonghua Wan, Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395.

Optimal Stochastic Operation of Salt River Project, Arizona, Eric R. Hooper, Aris P. Georgakakos and Dennis P. Lettenmaier, WR Sept./Oct. 91, p566-587.

Optimum Diversion Plan for Hydropower Scheme, Tawatchai Tingsanchali and Carlos C. Carriaga, WR Mar./Apr. 89, p195-211.

Parameter Estimation for Water Distribution Networks, Kevin E. Lansey and Chuda Basnet, WR Jan./Feb. 91, p126-144.

Stochastic Optimization of Multiple-Reservoir-System Operation, Benedito P. F. Braga, Jr., William W-G. Yeh, Leonard Becker and Mario T. L. Barros, WR July/Aug. 91, p471-481.

Optimization models

Aqueduct and Reservoir Capacities for Distribution Systems, Lawrence E. Flynn and Miguel A. Mariño, WR Sept./Oct. 89, p547-565.

Network Flow Modeling of Oroville Complex, Hossein Sabet and Curtis L. Creel, WR May/June 91, p301-320.

Reservoir Planning for Irrigation District, Abbas Afshar, Miguel A. Mariño and Ahmad Abrishamchi, WR Jan./Feb. 91, p74-85.

System Analysis of Water Treatment Plant in Taiwan, Ming-Yang Wu and Wen-Sen Chu, WR Sept./Oct. 91, p536-548.

Organization theory

Alternative Water-District Organization: Screening-Level Analysis, Christopher Enright and Jay R. Lund, WR Jan./Feb. 91, p86-107.

Parameters

Identification of Aquifer's Well-Pumpage Histories, John C. Tracy and Miguel A. Mariño, WR July/Aug. 91, p432-447.

Knowledge-Based System for SWMM Runoff Component Calibration, S. Y. Liong, W. T. Chan and L. H. Lum, WR Sept./Oct. 91, p507-524.

Optimal Configuration and Scheduling of Ground-Water Tracer Test, Theodore G. Cleveland and William W. -G. Yeh, WR Jan./Feb. 91, p37-51.

Parameter Estimation for Water Distribution Networks, Kevin E. Lansey and Chuda Basnet, WR Jan./Feb. 91, p126-144.

Pipe networks

Estimation of Maximum Cut-set Size for Water Network Failure, P. Jacobs and I. Goulter, WR Sept./Oct. 91, p588-605.

Planning

Integer Programming Application for Planning of Hydropower Production, Thanos Trezos, WR May/June 91, p340-351.

Optimum Diversion Plan for Hydropower Scheme, Tawatchai Tingsanchali and Carlos C. Carriaga, WR Mar./Apr. 89, p195-211.

Policies

Prototype Decision Support System for Analyzing Impact of Catchment Policies, J. Richard Davis, Paul M. Nanninga, John Biggins and Peter Laut, WR July/Aug. 91, p399-414.

Water Supplies and Nationwide Drought of 1988, David H. Moreau, WR July/Aug. 91, p460-470.

Pollutants

Pollutant Washoff Under Noise-Corrupted Runoff Conditions, G. G. Patry and A. Kennedy, WR Sept./Oct. 89, p646-657.

Pollution abatement

Method for Locally Adapted Water-Pollution Abatement in Lake Mjøsa, Norway, Hans Olav Ibrekk, Erik Børset and Erik Hauan, WR July/Aug. 91, p415-431.

Population statistics

Role of Sociodemographic Characteristics in Projections of Water Use, Steve H. Murdock, Don E. Albrecht, Rita R. Hamm and Kenneth Backman, WR Mar./Apr. 91, p235-251.

User-Specific Water Demand Elasticities, Michael L. Schneider and E. Earl Whitlatch, WR Jan./Feb. 91, p52-73.

Probability distribution
Recurrence Interval of Geophysical Events, Hugo A. Loaiciga and Miguel A. Mariño, WR May/June 91, p367-382.

Probability theory
Random Variables Versus Uncertain Values: Stochastic Modeling and Design, Jay R. Lund, WR Mar./Apr. 91, p179-194.

Project planning
Optimal Sequencing of Development for Hydropower Stations in Cascade, Yonghua Wan, Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395.

Public works
Levels of Service Applied to Urban Streams, H. Rooney Malcom and Cynthia C. Lancaster, WR July/Aug. 91, p482-497.

Pumping
Identification of Aquifer's Well-Pumpage Histories, John C. Tracy and Miguel A. Mariño, WR July/Aug. 91, p432-447.

Pumping stations
Optimal Design for Storm Sewer System with Pumping Stations, Jan-Tai Kuo, Ben Chie Yen and Gie-Ping Hwang, WR Jan./Feb. 91, p11-27.

Quadratic programming
Optimal Planning and Operation of Multiaquifer System, Hasan Yazicigil, WR July/Aug. 90, p435-454.

Rainfall
Estimation of Inundation in Open-Cast Limestone Mine in Kerala, India, S. P. Rajagopalan and P. M. Raghavendra Prasad, WR Sept./Oct. 91, p525-535.

Rainfall-runoff relationships
Output Reliability as Guide for Selection of Rainfall-Runoff Models, Charles S. Melching, Ben C. Yen and Harry G. Wenzel, Jr., WR May/June 91, p383-398.

Regional planning
Alternative Water-District Organization: Screening-Level Analysis, Christopher Enright and Jay R. Lund, WR Jan./Feb. 91, p86-107.

Regionalization in Water Supply Industry: Status and Needs, Neil S. Grigg, WR May/June 89, p367-378.

Using Regional Ground-Water Model in Water Resource Planning, Mark Maimone, WR July/Aug. 91, p448-459.

Regulation
Regionalization in Water Supply Industry: Status and Needs, Neil S. Grigg, WR May/June 89, p367-378.

Reliability
Estimation of Maximum Cut-set Size for Water Network Failure, P. Jacobs and I. Goulter, WR Sept./Oct. 91, p588-605.

Reliability-Based Distribution System Maintenance, Rafael G. Quimpo and Uzair M. Shamsi, WR May/June 91, p321-339.

Reliability analysis
Output Reliability as Guide for Selection of Rainfall-Runoff Models, Charles S. Melching, Ben C. Yen and Harry G. Wenzel, Jr., WR May/June 91, p383-398.

Reservoir design
Reservoir Planning for Irrigation District, Abbas Afshar, Miguel A. Mariño and Ahmad Abrishamchi, WR Jan./Feb. 91, p74-85.

Reservoir operation
Alternative Water-District Organization: Screening-Level Analysis, Christopher Enright and Jay R. Lund, WR Jan./Feb. 91, p86-107.

Climatic Sensitivity of California Water Resources, Dennis P. Lettenmaier and Daniel P. Sheer, WR Jan./Feb. 91, p108-125.

Drought Management Plan for Lower Colorado River in Texas, Quentin W. Martin, WR Nov./Dec. 91, p645-661.

Model Aggregation for California State Water Project, Hossein Sabet and Curtis L. Creel, WR Sept./Oct. 91, p549-565.

Network Flow Modeling of Oroville Complex, Hossein Sabet and Curtis L. Creel, WR May/June 91, p301-320.

Optimal Stochastic Operation of Salt River Project, Arizona, Eric R. Hooper, Aris P. Georgakakos and Dennis P. Lettenmaier, WR Sept./Oct. 91, p566-587.

Reservoir Operations by Successive Linear Programming, Tao Tao and William C. Lennox, WR Mar./Apr. 91, p274-280.

Reservoir Planning for Irrigation District, Abbas Afshar, Miguel A. Mariño and Ahmad Abrishamchi, WR Jan./Feb. 91, p74-85.

Stochastic Optimization of Multiple-Reservoir-System Operation, Benedito P. F. Braga, Jr., William W-G. Yeh, Leonard Becker and Mario T. L. Barros, WR July/Aug. 91, p471-481.

Testing Stochastic Dynamic Programming Models Conditioned on Observed or Forecasted Inflows, Wen-Cheng Huang, Ricardo Harboe and Janos J. Bogardi, WR Jan./Feb. 91, p28-36.

Reservoir performance
Climatic Sensitivity of California Water Resources, Dennis P. Lettenmaier and Daniel P. Sheer, WR Jan./Feb. 91, p108-125.

Reservoir storage
Aqueduct and Reservoir Capacities for Distribution Systems, Lawrence E. Flynn and Miguel A. Mariño, WR Sept./Oct. 89, p547-565.

Reservoirs
Aqueduct and Reservoir Capacities for Distribution Systems, Lawrence E. Flynn and Miguel A. Mariño, WR Sept./Oct. 89, p547-565.

Optimal Sequencing of Development for Hydropower Stations in Cascade, Yonghua Wan, Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395.

Optimum Diversion Plan for Hydropower Scheme, Tawatchai Tingsanchali and Carlos C. Carriaga, WR Mar./Apr. 89, p195-211.

Resource allocation
Levels of Service Applied to Urban Streams, H. Rooney Malcom and Cynthia C. Lancaster, WR July/Aug. 91, p482-497.

Risk analysis
Recurrence Interval of Geophysical Events, Hugo A. Loaiciga and Miguel A. Mariño, WR May/June 91, p367-382.

Runoff
Annual Runoff Estimation for Catchments in India, U. C. Kothyari and R. J. Garde, WR Jan./Feb. 91, p1-10.
Climatic Sensitivity of California Water Resources, Dennis P. Lettenmaier and Daniel P. Sheer, WR Jan./Feb. 91, p108-125.
Efficacy of SWMM Application, J. J. Warwick and P. Tadepalli, WR May/June 91, p352-366.
Estimation of Inundation in Open-Cast Limestone Mine in Kerala, India, S. P. Rajagopalan and P. M. Raghavendra Prasad, WR Sept./Oct. 91, p525-535.

Runoff forecasting
Annual Runoff Estimation for Catchments in India, U. C. Kothyari and R. J. Garde, WR Jan./Feb. 91, p1-10.
Climatic Sensitivity of California Water Resources, Dennis P. Lettenmaier and Daniel P. Sheer, WR Jan./Feb. 91, p108-125.
Efficacy of SWMM Application, J. J. Warwick and P. Tadepalli, WR May/June 91, p352-366.

Salinity
Conjunctive Water Use to Control Waterlogging and Salinization, Muhammad Latif and L. Douglas James, WR Nov./Dec. 91, p611-628.

Saudi Arabia
Optimal Planning and Operation of Multiaquifer System, Hasan Yazicigil, WR July/Aug. 90, p435-454.

Services
Levels of Service Applied to Urban Streams, H. Rooney Malcom and Cynthia C. Lancaster, WR July/Aug. 91, p482-497.

Simulation
Network Flow Modeling of Oroville Complex, Hossein Sabet and Curtis L. Creel, WR May/June 91, p301-320.
Parameter Estimation for Water Distribution Networks, Kevin E. Lansey and Chuda Basnet, WR Jan./Feb. 91, p126-144.

Simulation models
Climatic Sensitivity of California Water Resources, Dennis P. Lettenmaier and Daniel P. Sheer, WR Jan./Feb. 91, p108-125.
Model Aggregation for California State Water Project, Hossein Sabet and Curtis L. Creel, WR Sept./Oct. 91, p549-565.

Size
Estimation of Maximum Cut-set Size for Water Network Failure, P. Jacobs and I. Goulter, WR Sept./Oct. 91, p588-605.

Social aspects
Role of Sociodemographic Characteristics in Projections of Water Use, Steve H. Murdock, Don E. Albrecht, Rita R. Hamm and Kenneth Backman, WR Mar./Apr. 91, p235-251.

Social impact
Sociotechnical Analysis of Irrigation Drainage in Central California, Janne I. Hukkinen, WR Mar./Apr. 91, p217-234.

Social needs
Education—Key to Dealing with Social and Environmental Objectives, Ernest T. Smerdon, WR Jan./Feb. 89, p43-17.

Socioeconomic data
Role of Sociodemographic Characteristics in Projections of Water Use, Steve H. Murdock, Don E. Albrecht, Rita R. Hamm and Kenneth Backman, WR Mar./Apr. 91, p235-251.
User-Specific Water Demand Elasticities, Michael L. Schneider and E. Earl Whitlatch, WR Jan./Feb. 91, p52-73.

Stability analysis
On Management of Ground Water in Ross Creek Basin, Alberta, Canada, Duke U. Ophori, WR Mar./Apr. 91, p195-216.

State agencies
Sociotechnical Analysis of Irrigation Drainage in Central California, Janne I. Hukkinen, WR Mar./Apr. 91, p217-234.

State government
Regionalization in Water Supply Industry: Status and Needs, Neil S. Grigg, WR May/June 89, p367-378.

Statistical analysis
Identification of Aquifer's Well-Pumpage Histories, John C. Tracy and Miguel A. Mariño, WR July/Aug. 91, p432-447.

Stochastic models
Pollutant Washoff Under Noise-Corrupted Runoff Conditions, G. G. Patry and A. Kennedy, WR Sept./Oct. 89, p646-657.
Random Variables Versus Uncertain Values: Stochastic Modeling and Design, Jay R. Lund, WR Mar./Apr. 91, p179-194.
Stochastic Optimization of Multiple-Reservoir-System Operation, Benedito P. F. Braga, Jr., William W-G. Yeh, Leonard Becker and Mario T. L. Barros, WR July/Aug. 91, p471-481.

Stochastic processes
Optimal Stochastic Operation of Salt River Project, Arizona, Eric R. Hooper, Aris P. Georgakakos and Dennis P. Lettenmaier, WR Sept./Oct. 91, p566-587.

Storm sewers
Optimal Design for Storm Sewer System with Pumping Stations, Jan-Tai Kuo, Ben Chie Yen and Gie-Ping Hwang, WR Jan./Feb. 91, p11-27.

Stormwater management
Efficacy of SWMM Application, J. J. Warwick and P. Tadepalli, WR May/June 91, p352-366.

Knowledge-Based System for SWMM Runoff Component Calibration, S. Y. Liong, W. T. Chan and L. H. Lum, WR Sept./Oct. 91, p507-524.

Streams

Levels of Service Applied to Urban Streams, H. Rooney Malcom and Cynthia C. Lancaster, WR July/Aug. 91, p482-497.

Surface irrigation

Conjunctive Water Use to Control Waterlogging and Salinization, Muhammad Latif and L. Douglas James, WR Nov./Dec. 91, p611-628.

Surface runoff

Pollutant Washoff Under Noise-Corrupted Runoff Conditions, G. G. Patry and A. Kennedy, WR Sept./Oct. 89, p646-657.

Surface waters

Multistep Planning Model for Conjunctive Use of Surface- and Ground-Water Resources, Pushpa Raj Onta, Ashim Das Gupta and Ricardo Harboe, WR Nov./Dec. 91, p662-678.

Surveys, data collection

Water Supplies and Nationwide Drought of 1988, David H. Moreau, WR July/Aug. 91, p460-470.

System analysis

System Analysis of Water Treatment Plant in Taiwan, Ming-Yang Wu and Wen-Sen Chu, WR Sept./Oct. 91, p536-548.

Taiwan

System Analysis of Water Treatment Plant in Taiwan, Ming-Yang Wu and Wen-Sen Chu, WR Sept./Oct. 91, p536-548.

Technology assessment

Sociotechnical Analysis of Irrigation Drainage in Central California, Janne I. Hukkinen, WR Mar./Apr. 91, p217-234.

Thermal power plants

Optimal Sequencing of Development for Hydropower Stations in Cascade, Yonghua Wan, Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395.

Three-dimensional models

Optimal Planning and Operation of Multiaquifer System, Hasan Yazicigil, WR July/Aug. 90, p435-454.

Time series analysis

Recurrence Interval of Geophysical Events, Hugo A. Loaiciga and Miguel A. Mariño, WR May/June 91, p367-382.

Toxic wastes

Expert Systems for Mixing-Zone Analysis of Pollutant Discharges, Robert L. Doneker and Gerhard H. Jirka, WR Nov./Dec. 91, p679-697.

Uncertainty analysis

Output Reliability as Guide for Selection of Rainfall-Runoff Models, Charles S. Melching, Ben C. Yen and Harry G. Wenzel, Jr., WR May/June 91, p383-398.

Pollutant Washoff Under Noise-Corrupted Runoff Conditions, G. G. Patry and A. Kennedy, WR Sept./Oct. 89, p646-657.

United States

Water Supplies and Nationwide Drought of 1988, David H. Moreau, WR July/Aug. 91, p460-470.

Urban areas

Efficacy of SWMM Application, J. J. Warwick and P. Tadepalli, WR May/June 91, p352-366.

Urban planning

Levels of Service Applied to Urban Streams, H. Rooney Malcom and Cynthia C. Lancaster, WR July/Aug. 91, p482-497.

Utilities

Regionalization in Water Supply Industry: Status and Needs, Neil S. Grigg, WR May/June 89, p367-378.

Water Supplies and Nationwide Drought of 1988, David H. Moreau, WR July/Aug. 91, p460-470.

Waste management

Sociotechnical Analysis of Irrigation Drainage in Central California, Janne I. Hukkinen, WR Mar./Apr. 91, p217-234.

Water conservation

Water Requirements Versus Water Availability in Saudi Arabia, Omar S. Abu Rizaiza and Mohamed N. Allam, WR Jan./Feb. 89, p64-74.

Water costs

User-Specific Water Demand Elasticities, Michael L. Schneider and E. Earl Whitlatch, WR Jan./Feb. 91, p52-73.

Water demand

CO_2-Induced Climatic Changes and Irrigation-Water Requirements, Richard G. Allen, Francis N. Gichuki and Cynthia Rosenzweig, WR Mar./Apr. 91, p157-178.

Drought Management Plan for Lower Colorado River in Texas, Quentin W. Martin, WR Nov./Dec. 91, p645-661.

Equitable Apportionment Between Nevada and California, John W. Bird, WR Mar./Apr. 91, p253-259.

User-Specific Water Demand Elasticities, Michael L. Schneider and E. Earl Whitlatch, WR Jan./Feb. 91, p52-73.

Water Requirements Versus Water Availability in Saudi Arabia, Omar S. Abu Rizaiza and Mohamed N. Allam, WR Jan./Feb. 89, p64-74.

Water distribution

Aqueduct and Reservoir Capacities for Distribution Systems, Lawrence E. Flynn and Miguel A. Mariño, WR Sept./Oct. 89, p547-565.

Equitable Apportionment Between Nevada and California, John W. Bird, WR Mar./Apr. 91, p253-259.

Estimation of Maximum Cut-set Size for Water Network Failure, P. Jacobs and I. Goulter, WR Sept./Oct. 91, p588-605.

Parameter Estimation for Water Distribution Networks, Kevin E. Lansey and Chuda Basnet, WR Jan./Feb. 91, p126-144.

Reliability-Based Distribution System Maintenance, Rafael G. Quimpo and Uzair M. Shamsi, WR May/June 91, p321-339.

Water management

Education—Key to Dealing with Social and Environmental Objectives, Ernest T. Smerdon, WR Jan./Feb. 89, p43-17.

Estimation of Inundation in Open-Cast Limestone Mine in Kerala, India, S. P. Rajagopalan and P. M. Raghavendra Prasad, WR Sept./Oct. 91, p525-535.

Integer Programming Application for Planning of Hydropower Production, Thanos Trezos, WR May/June 91, p340-351.

Water Requirements Versus Water Availability in Saudi Arabia, Omar S. Abu Rizaiza and Mohamed N. Allam, WR Jan./Feb. 89, p64-74.

Water plans

Education—Key to Dealing with Social and Environmental Objectives, Ernest T. Smerdon, WR Jan./Feb. 89, p43-17.

Water pollution

Expert Systems for Mixing-Zone Analysis of Pollutant Discharges, Robert L. Doneker and Gerhard H. Jirka, WR Nov./Dec. 91, p679-697.

Mass Transport Modeling in Contaminated Buried-Valley Aquifer, Paul F. Hudak and Hugo A. Loaiciga, WR Mar./Apr. 91, p260-272.

Method for Locally Adapted Water-Pollution Abatement in Lake Mjøsa, Norway, Hans Olav Ibrekk, Erik Børset and Erik Hauan, WR July/Aug. 91, p415-431.

Water quality

Efficacy of SWMM Application, J. J. Warwick and P. Tadepalli, WR May/June 91, p352-366.

Expert Systems for Mixing-Zone Analysis of Pollutant Discharges, Robert L. Doneker and Gerhard H. Jirka, WR Nov./Dec. 91, p679-697.

Method for Locally Adapted Water-Pollution Abatement in Lake Mjøsa, Norway, Hans Olav Ibrekk, Erik Børset and Erik Hauan, WR July/Aug. 91, p415-431.

Prototype Decision Support System for Analyzing Impact of Catchment Policies, J. Richard Davis, Paul M. Nanninga, John Biggins and Peter Laut, WR July/Aug. 91, p399-414.

Water resources

Alternative Water-District Organization: Screening-Level Analysis, Christopher Enright and Jay R. Lund, WR Jan./Feb. 91, p86-107.

Climatic Sensitivity of California Water Resources, Dennis P. Lettenmaier and Daniel P. Sheer, WR Jan./Feb. 91, p108-125.

Law and Natural-Resource Development: Case of Water in Lesotho, Fred O. Boadu, WR Nov./Dec. 91, p698-710.

Water resources management

Annual Runoff Estimation for Catchments in India, U. C. Kothyari and R. J. Garde, WR Jan./Feb. 91, p1-10.

Drought Management Plan for Lower Colorado River in Texas, Quentin W. Martin, WR Nov./Dec. 91, p645-661.

Integer Programming Application for Planning of Hydropower Production, Thanos Trezos, WR May/June 91, p340-351.

Law and Natural-Resource Development: Case of Water in Lesotho, Fred O. Boadu, WR Nov./Dec. 91, p698-710.

Mass Transport Modeling in Contaminated Buried-Valley Aquifer, Paul F. Hudak and Hugo A. Loaiciga, WR Mar./Apr. 91, p260-272.

Model Aggregation for California State Water Project, Hossein Sabet and Curtis L. Creel, WR Sept./Oct. 91, p549-565.

Role for Decision-Support Systems in Water-Delivery Design, David E. Pingry, Timothy L. Shaftel and Keith E. Boles, WR Nov./Dec. 91, p629-644.

Role of Sociodemographic Characteristics in Projections of Water Use, Steve H. Murdock, Don E. Albrecht, Rita R. Hamm and Kenneth Backman, WR Mar./Apr. 91, p235-251.

Using Regional Ground-Water Model in Water Resource Planning, Mark Maimone, WR July/Aug. 91, p448-459.

Water Requirements Versus Water Availability in Saudi Arabia, Omar S. Abu Rizaiza and Mohamed N. Allam, WR Jan./Feb. 89, p64-74.

Water rights

Equitable Apportionment Between Nevada and California, John W. Bird, WR Mar./Apr. 91, p253-259.

Law and Natural-Resource Development: Case of Water in Lesotho, Fred O. Boadu, WR Nov./Dec. 91, p698-710.

Water supply

Alternative Water-District Organization: Screening-Level Analysis, Christopher Enright and Jay R. Lund, WR Jan./Feb. 91, p86-107.

Conjunctive Water Use to Control Waterlogging and Salinization, Muhammad Latif and L. Douglas James, WR Nov./Dec. 91, p611-628.

Drought Management Plan for Lower Colorado River in Texas, Quentin W. Martin, WR Nov./Dec. 91, p645-661.

Regionalization in Water Supply Industry: Status and Needs, Neil S. Grigg, WR May/June 89, p367-378.

Water Requirements Versus Water Availability in Saudi Arabia, Omar S. Abu Rizaiza and Mohamed N. Allam, WR Jan./Feb. 89, p64-74.

Water Supplies and Nationwide Drought of 1988, David H. Moreau, WR July/Aug. 91, p460-470.

Water supply forecasting

Water Requirements Versus Water Availability in Saudi Arabia, Omar S. Abu Rizaiza and Mohamed N. Allam, WR Jan./Feb. 89, p64-74.

Water supply systems

Forecasting in Optimizing Dual System for Energy Generation and Irrigation, Gideon Oron, Abraham Mehrez and Gad Rabinowitz, WR May/June 91, p287-300.

Reliability-Based Distribution System Maintenance, Rafael G. Quimpo and Uzair M. Shamsi, WR May/June 91, p321-339.

Role for Decision-Support Systems in Water-Delivery Design, David E. Pingry, Timothy L. Shaftel and Keith E. Boles, WR Nov./Dec. 91, p629-644.

Water treatment plants

System Analysis of Water Treatment Plant in Taiwan, Ming-Yang Wu and Wen-Sen Chu, WR Sept./Oct. 91, p536-548.

Water tunnels

Optimum Diversion Plan for Hydropower Scheme, Tawatchai Tingsanchali and Carlos C. Carriaga, WR Mar./Apr. 89, p195-211.

Water use

Conjunctive Water Use to Control Waterlogging and Salinization, Muhammad Latif and L. Douglas James, WR Nov./Dec. 91, p611-628.

Role of Sociodemographic Characteristics in Projections of Water Use, Steve H. Murdock, Don E. Albrecht, Rita R. Hamm and Kenneth Backman, WR Mar./Apr. 91, p235-251.

User-Specific Water Demand Elasticities, Michael L. Schneider and E. Earl Whitlatch, WR Jan./Feb. 91, p52-73.

Water yield

Using Regional Ground-Water Model in Water Resource Planning, Mark Maimone, WR July/Aug. 91, p448-459.

AUTHOR INDEX

Abderrahmam, Walid A.
disc. (of Water Requirements Versus Water Availability in Saudi Arabia, by Omar S. Abu Rizaiza and Mohamed N. Allam, WR Jan./Feb. 89, p64-74) with Abdullah E. Dabbagh, WR Mar./Apr. 91, p282-283

Abrishamchi, Ahmad
see Afshar, Abbas, WR Jan./Feb. 91, p74-85

Afshar, Abbas
Reservoir Planning for Irrigation District, with Miguel A. Mariño and Ahmad Abrishamchi, WR Jan./Feb. 91, p74-85

Albrecht, Don E.
see Murdock, Steve H., WR Mar./Apr. 91, p235-251

Allam, Mohamed N.
see Rizaiza, Omar S. Abu, WR Jan./Feb. 89, p64-74

Allen, Richard G.
CO_2-Induced Climatic Changes and Irrigation-Water Requirements, with Francis N. Gichuki and Cynthia Rosenzweig, WR Mar./Apr. 91, p157-178

Backman, Kenneth
see Murdock, Steve H., WR Mar./Apr. 91, p235-251

Barros, Mario T. L.
see Braga, Benedito P. F., Jr., WR July/Aug. 91, p471-481

Basnet, Chuda
see Lansey, Kevin E., WR Jan./Feb. 91, p126-144

Becker, Leonard
see Braga, Benedito P. F., Jr., WR July/Aug. 91, p471-481

Biggins, John
see Davis, J. Richard, WR July/Aug. 91, p399-414

Bird, John W.
Equitable Apportionment Between Nevada and California, WR Mar./Apr. 91, p253-259

Bosdu, Fred O.
Law and Natural-Resource Development: Case of Water in Lesotho, WR Nov./Dec. 91, p698-710

Bogardi, Janos J.
see Huang, Wen-Cheng, WR Jan./Feb. 91, p28-36

Boles, Keith E.
see Pingry, David E., WR Nov./Dec. 91, p629-644

Børset, Erik
see Ibrekk, Hans Olav, WR July/Aug. 91, p415-431

Braga, Benedito P. F., Jr.
Stochastic Optimization of Multiple-Reservoir-System Operation, with William W-G. Yeh, Leonard Becker and Mario T. L. Barros, WR July/Aug. 91, p471-481

Carriaga, Carlos C.
see Tingsanchali, Tawatchai, WR Mar./Apr. 89, p195-211

Chan, W. T.
see Liong, S. Y., WR Sept./Oct. 91, p507-524

Chu, Wen-Sen
see Wu, Ming-Yang, WR Sept./Oct. 91, p536-548

Cleveland, Theodore G.
Optimal Configuration and Scheduling of Ground-Water Tracer Test, with William W.-G. Yeh, WR Jan./Feb. 91, p37-51

Creel, Curtis L.
see Sabet, Hossein, WR May/June 91, p301-320
see Sabet, Hossein, WR Sept./Oct. 91, p549-565

Dabbagh, Abdullah E.
see Abderrahmam, Walid A., (disc), WR Jan./Feb. 89, p64-74

Davis, J. Richard
Prototype Decision Support System for Analyzing Impact of Catchment Policies, with Paul M. Nanninga, John Biggins and Peter Laut, WR July/Aug. 91, p399-414

Doneker, Robert L.
Expert Systems for Mixing-Zone Analysis of Pollutant Discharges, with Gerhard H. Jirka, WR Nov./Dec. 91, p679-697

Enright, Christopher
Alternative Water-District Organization: Screening-Level Analysis, with Jay R. Lund, WR Jan./Feb. 91, p86-107

Flynn, Lawrence E.
Aqueduct and Reservoir Capacities for Distribution Systems, with Miguel A. Mariño, WR Sept./Oct. 89, p547-565
disc: Ananda D. Moonasingha, WR July/Aug. 91, p504-505

Garde, R. J.
see Kothyari, U. C., WR Jan./Feb. 91, p1-10

Georgakakos, Aris P.
see Hooper, Eric R., WR Sept./Oct. 91, p566-587

Gichuki, Francis N.
see Allen, Richard G., WR Mar./Apr. 91, p157-178

Goulter, I.
see Jacobs, P., WR Sept./Oct. 91, p588-605

Grigg, Neil S.
Regionalization in Water Supply Industry: Status and Needs, WR May/June 89, p367-378
disc: William Whipple, Jr., WR July/Aug. 91, p500-501
clo: WR July/Aug. 91, p501-502

Gupta, Ashim Das
see Onta, Pushpa Raj, WR Nov./Dec. 91, p662-678

Hamm, Rita R.
see Murdock, Steve H., WR Mar./Apr. 91, p235-251

Harboe, Ricardo
see Huang, Wen-Cheng, WR Jan./Feb. 91, p28-36
see Onta, Pushpa Raj, WR Nov./Dec. 91, p662-678

Hauan, Erik
see Ibrekk, Hans Olav, WR July/Aug. 91, p415-431

Hooper, Eric R.
Optimal Stochastic Operation of Salt River Project, Arizona, with Aris P. Georgakakos and Dennis P. Lettenmaier, WR Sept./Oct. 91, p566-587

Huang, Shiyun
see Wan, Yonghua, WR May/June 89, p379-395

Huang, Wen-Cheng
Testing Stochastic Dynamic Programming Models Conditioned on Observed or Forecasted Inflows, with Ricardo Harboe and Janos J. Bogardi, WR Jan./Feb. 91, p28-36

Hudak, Paul F.
Mass Transport Modeling in Contaminated Buried-Valley Aquifer, with Hugo A. Loaiciga, WR Mar./Apr. 91, p260-272

Hukkinen, Janne I.
Sociotechnical Analysis of Irrigation Drainage in Central California, WR Mar./Apr. 91, p217-234

Hwang, Gie-Ping
see Kuo, Jan-Tai, WR Jan./Feb. 91, p11-27

Ibrekk, Hans Olav
Method for Locally Adapted Water-Pollution Abatement in Lake Mjøsa, Norway, with Erik Børset and Erik Hauan, WR July/Aug. 91, p415-431

Jacobs, P.
Estimation of Maximum Cut-set Size for Water Network Failure, with I. Goulter, WR Sept./Oct. 91, p588-605

James, L. Douglas
see Latif, Muhammad, WR Nov./Dec. 91, p611-628

Jirka, Gerhard H.
see Doneker, Robert L., WR Nov./Dec. 91, p679-697

Kennedy, A.
see Patry, G. G., WR Sept./Oct. 89, p646-657

Kothyari, U. C.
Annual Runoff Estimation for Catchments in India, with R. J. Garde, WR Jan./Feb. 91, p1-10

Kuo, Jan-Tai
Optimal Design for Storm Sewer System with Pumping Stations, with Ben Chie Yen and Gie-Ping Hwang, WR Jan./Feb. 91, p11-27

Lancaster, Cynthia C.
see Malcom, H. Rooney, WR July/Aug. 91, p482-497

Lansey, Kevin E.
Parameter Estimation for Water Distribution Networks, with Chuda Basnet, WR Jan./Feb. 91, p126-144

Latif, Muhammad
Conjunctive Water Use to Control Waterlogging and Salinization, with L. Douglas James, WR Nov./Dec. 91, p611-628

Laut, Peter
see Davis, J. Richard, WR July/Aug. 91, p399-414

Lennox, William C.
see Tao, Tao, WR Mar./Apr. 91, p274-280

Lettenmaier, Dennis P.
Climatic Sensitivity of California Water Resources, with Daniel P. Sheer, WR Jan./Feb. 91, p108-125
see Hooper, Eric R., WR Sept./Oct. 91, p566-587

Liong, S. Y.
Knowledge-Based System for SWMM Runoff Component Calibration, with W. T. Chan and L. H. Lum, WR Sept./Oct. 91, p507-524

Loaiciga, Hugo A.
Recurrence Interval of Geophysical Events, with Miguel A. Mariño, WR May/June 91, p367-382
see Hudak, Paul F., WR Mar./Apr. 91, p260-272

Lockett, Wilfred G.
disc. (of Optimum Diversion Plan for Hydropower Scheme, by Tawatchai Tingsanchali and Carlos C. Carriaga, WR Mar./Apr. 89, p195-211), WR Jan./Feb. 91, p146

Lum, L. H.
see Liong, S. Y., WR Sept./Oct. 91, p507-524

Lund, Jay R.
Random Variables Versus Uncertain Values: Stochastic Modeling and Design, WR Mar./Apr. 91, p179-194
see Enright, Christopher, WR Jan./Feb. 91, p86-107

Maimone, Mark
Using Regional Ground-Water Model in Water Resource Planning, WR July/Aug. 91, p448-459

Malcom, H. Rooney
Levels of Service Applied to Urban Streams, with Cynthia C. Lancaster, WR July/Aug. 91, p482-497

Mariño, Miguel A.
see Afshar, Abbas, WR Jan./Feb. 91, p74-85
see Flynn, Lawrence E., WR Sept./Oct. 89, p547-565
see Loaiciga, Hugo A., WR May/June 91, p367-382
see Tracy, John C., WR July/Aug. 91, p432-447
see Wan, Yonghua, WR May/June 89, p379-395

Martin, Quentin W.
Drought Management Plan for Lower Colorado River in Texas, WR Nov./Dec. 91, p645-661

Mehrez, Abraham
see Oron, Gideon, WR May/June 91, p287-300

Melching, Charles S.
Output Reliability as Guide for Selection of Rainfall-Runoff Models, with Ben C. Yen and Harry G. Wenzel, Jr., WR May/June 91, p383-398

Moonasingha, Ananda D.
disc. (of Aqueduct and Reservoir Capacities for Distribution Systems, by Lawrence E. Flynn and Miguel A. Mariño, WR Sept./Oct. 89, p547-565), WR July/Aug. 91, p504-505
disc. (of Education—Key to Dealing with Social and Environmental Objectives, by Ernest T. Smerdon, WR Jan./Feb. 89, p43-17), WR Jan./Feb. 91, p147-149

Moreau, David H.
Water Supplies and Nationwide Drought of 1988, WR July/Aug. 91, p460-470

Murdock, Steve H.
Role of Sociodemographic Characteristics in Projections of Water Use, with Don E. Albrecht, Rita R. Hamm and Kenneth Backman, WR Mar./Apr. 91, p235-251

Nanninga, Paul M.
see Davis, J. Richard, WR July/Aug. 91, p399-414

Onta, Pushpa Raj
Multistep Planning Model for Conjunctive Use of Surface- and Ground-Water Resources, with Ashim Das Gupta and Ricardo Harboe, WR Nov./Dec. 91, p662-678

Ophori, Duke U.
On Management of Ground Water in Ross Creek Basin, Alberta, Canada, WR Mar./Apr. 91, p195-216

Oron, Gideon
Forecasting in Optimizing Dual System for Energy Generation and Irrigation, with Abraham Mehrez and Gad Rabinowitz, WR May/June 91, p287-300

Patry, G. G.
Pollutant Washoff Under Noise-Corrupted Runoff Conditions, with A. Kennedy, WR Sept./Oct. 89, p646-657
disc: Yeou-Koung Tung, WR Sept./Oct. 91, p608-609

Pingry, David E.
Role for Decision-Support Systems in Water-Delivery Design, with Timothy L. Shaftel and Keith E. Boles, WR Nov./Dec. 91, p629-644

Prasad, P. M. Raghavendra
see Rajagopalan, S. P., WR Sept./Oct. 91, p525-535

Quimpo, Rafael G.
Reliability-Based Distribution System Maintenance, with Uzair M. Shamsi, WR May/June 91, p321-339

Rabinowitz, Gad
see Oron, Gideon, WR May/June 91, p287-300

Rajagopalan, S. P.
Estimation of Inundation in Open-Cast Limestone Mine in Kerala, India, with P. M. Raghavendra Prasad, WR Sept./Oct. 91, p525-535

Rizaiza, Omar S. Abu
Water Requirements Versus Water Availability in Saudi Arabia, with Mohamed N. Allam, WR Jan./Feb. 89, p64-74
disc: Walid A. Abderrahmam and Abdullah E. Dabbagh, WR Mar./Apr. 91, p282-283
clo: WR Mar./Apr. 91, p284-286

Rosenzweig, Cynthia
see Allen, Richard G., WR Mar./Apr. 91, p157-178

Sabet, Hossein
Model Aggregation for California State Water Project, with Curtis L. Creel, WR Sept./Oct. 91, p549-565
Network Flow Modeling of Oroville Complex, with Curtis L. Creel, WR May/June 91, p301-320

Schneider, Michael L.
User-Specific Water Demand Elasticities, with E. Earl Whitlatch, WR Jan./Feb. 91, p52-73

Shaftel, Timothy L.
see Pingry, David E., WR Nov./Dec. 91, p629-644

Shamsi, Uzair M.
see Quimpo, Rafael G., WR May/June 91, p321-339

Sheer, Daniel P.
see Lettenmaier, Dennis P., WR Jan./Feb. 91, p108-125

Smerdon, Ernest T.
Education—Key to Dealing with Social and Environmental Objectives, WR Jan./Feb. 89, p43-17
disc: Ananda D. Moonasingha, WR Jan./Feb. 91, p147-149
clo: WR Jan./Feb. 91, p149-150

Tadepalli, P.
see Warwick, J. J., WR May/June 91, p352-366

Tao, Tao
Reservoir Operations by Successive Linear Programming, with William C. Lennox, WR Mar./Apr. 91, p274-280
disc. (of Optimal Sequencing of Development for Hydropower Stations in Cascade, by Yonghua Wan, Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395), WR July/Aug. 91, p502-503

Tingsanchali, Tawatchai
Optimum Diversion Plan for Hydropower Scheme, with Carlos C. Carriaga, WR Mar./Apr. 89, p195-211
err: WR Jan./Feb. 90, p151
err: WR Jan./Feb. 90, p151
disc: Wilfred G. Lockett, WR Jan./Feb. 91, p146
clo: WR Jan./Feb. 91, p146-147

Tracy, John C.
Identification of Aquifer's Well-Pumpage Histories, with Miguel A. Mariño, WR July/Aug. 91, p432-447

Trezos, Thanos
Integer Programming Application for Planning of Hydropower Production, WR May/June 91, p340-351

Tung, Yeou-Koung
disc. (of Pollutant Washoff Under Noise-Corrupted Runoff Conditions, by G. G. Patry and A. Kennedy, WR Sept./Oct. 89, p646-657), WR Sept./Oct. 91, p608-609

Wan, Yonghua
Optimal Sequencing of Development for Hydropower Stations in Cascade, with Shiyun Huang and Miguel A. Mariño, WR May/June 89, p379-395
disc: Tao Tao, WR July/Aug. 91, p502-503
clo: WR July/Aug. 91, p503-504

Warwick, J. J.
Efficacy of SWMM Application, with P. Tadepalli, WR May/June 91, p352-366

Wenzel, Harry G., Jr.
see Melching, Charles S., WR May/June 91, p383-398

Whipple, William, Jr.
disc. (of Regionalization in Water Supply Industry: Status and Needs, by Neil S. Grigg, WR May/June 89, p367-378), WR July/Aug. 91, p500-501

Whitlatch, E. Earl
see Schneider, Michael L., WR Jan./Feb. 91, p52-73

Wu, Ming-Yang
System Analysis of Water Treatment Plant in Taiwan, with Wen-Sen Chu, WR Sept./Oct. 91, p536-548

Yazicigil, Hasan
Optimal Planning and Operation of Multiaquifer System, WR July/Aug. 90, p435-454
err: WR Jan./Feb. 91, p151

Yeh, William W.-G.
see Cleveland, Theodore G., WR Jan./Feb. 91, p37-51

Yeh, William W-G.
see Braga, Benedito P. F., Jr., WR July/Aug. 91, p471-481

Yen, Ben C.
see Melching, Charles S., WR May/June 91, p383-398

Yen, Ben Chie
see Kuo, Jan-Tai, WR Jan./Feb. 91, p11-27